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Visual Communication in the Workplace: A Survey of Practice

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This article reports the results of a survey of professional writers about the nature and importance of visual communication in their work. The results confirm the suggestions in the field's literature that visual communication is important to workplace practice and that the role of the professional writer has expanded beyond the domain of the verbal. Visual communication responsibilities are complex and varied, but the practitioners surveyed typically engage in substantial amounts of design-related work and value visual communication abilities. The data suggest that visual communication should be a curricular priority in professional writing programs.

Our field's growing awareness of the centrality of visual communication to the work of professional writers has given rise to much of the visually oriented research in pedagogy, rhetoric, and related areas within professional communication (see, for example, Brasseur, 1997; Kostelnick, 1994). Complementing this work, educators have also been actively developing courses and programs to help prepare students for the expanded professional roles they will likely assume. It is not surprising, therefore, that a 2003 survey of members of the Association of Teachers of Technical Writing (ATTW) ascertained that teachers of professional writing give visual communication top billing as a topic of interest (Dayton & Bernhardt, 2004). However, while visual communication has established a firm foothold in professional communication research and pedagogy (Allen & Benninghoff, 2004), program coordinators and faculty more generally lack current data about the role of visual communication in the workplace. Such data could help to determine whether academic perceptions of the importance of visual communication are well founded, and, in turn, whether academic programs are meeting student needs in terms of workplace preparation. Such data could also provide concrete evidence in arguments about curricular design and enrich the information educators are able to offer students about the workplace life of the professional writer. As professional communication programs continue to mature and proliferate, such information will become even more useful.

This article offers insight into the role of visual communication in the workplace based on the results of a survey of practitioners. The survey data suggest that visual communication is at least as important to workplace practice as the literature suggests. In addition to providing information about the amount and type of visual communication work engaged in by practitioners, the survey results paint a clear picture of the value that practitioners place on visual communication abilities.

REVIEW OF THE LITERATURE

Over the past two decades, numerous articles have emphasized the importance of visual communication to curricula and to professional communication practice. For example, Bernhardt (1986) argued that pedagogy that ignored the growing importance of visual communication would become "increasingly irrelevant" (p. 77). Brasseur (1997) likewise emphasized the pedagogical importance of the visual in preparing students for their roles as professional communicators. Making a similar case for practitioners, Rainey (1997) argued that the roles of designer and writer have converged, and in turn, visual communication has become a central task for many technical writers. Indeed, Olsen (1991) suggested that professional communicators "must become *eidetekers*, not only masters of the new technology but also possessors of a deep understanding of the theories and structures of visual knowledge" (p. 19). In light of these and other arguments that have been made regarding the importance of visual communication to the work of the professional writer, one would expect the literature also to offer studies providing data about that work.

A review of articles published since 2000 in four leading professional communication journals (*IEEE Transactions on Professional Communication*, *Journal of Business and Technical Communication*, *Technical Communication*, and *Technical Communication Quarterly*) reveals several pieces on aspects of visual communication (most of which appear in *Technical Communication,* the most practitioner-oriented of the journals), but none that addresses specifically visual communication in the workplace. In fact, while there has been quite a bit of discussion about the changing role of the technical communicator, there are very few recent articles that present empirical data on the roles of professional communicators in the workplace more generally, which is somewhat surprising given the high level of interest in this topic reported by ATTW members in the Dayton and Bernhardt survey cited above.

Zimmerman and Long (1993) report the results of three studies of practicing technical communication professionals: two regional studies from the 1980s and one nationwide survey of Society for Technical Communication (STC) members from 1990. Each of the studies reached a similar conclusion: Professional communicators have responsibility for a wide range of tasks that typically includes

writing, editing, producing, and managing documents in a variety of media (p. 305). Writing and editing skills, problem-solving abilities, and flexibility (in responding to deadlines, shifting responsibilities, and so on) figured prominently. What little mention was made of visual communication focused on illustration skills.

More recently, Whiteside (2003) conducted a study focused on the skills needed by technical communicators new to the workplace. Whiteside surveyed and interviewed recent graduates of four undergraduate programs in order to discover what skills they felt they needed to learn for their jobs that they did not learn in school. Additionally, Whiteside surveyed managers of 50 technical communication departments in order to find out what skills they believed new technical communicators needed to acquire that they had not acquired in their programs. While there was some disagreement between recent graduates and managers (graduates tended to place more emphasis on tools knowledge), both sets of respondents agreed that the new technical communicators needed more problem-solving skills, project-management abilities, scientific and technical knowledge, and general knowledge of business operations. Again, visual communication as a distinct form of communication received little to no attention.

The most recent, and perhaps the most detailed, study investigating workplace roles is that conducted by Rainey, Turner, and Dayton (2005). Reporting on 10 undergraduate programs and presenting data from a survey of 67 managers, the authors present a comprehensive list of core competencies for technical communicators. The managers surveyed represented a broad range of industries, years of experience, and "information product types" (p. 325). As Rainey et al. observe, because of this range of respondents, "the data can be assumed to be suggestive for the profession, if not representative because of the small, non-probabilistic sample" (p. 325).

As with earlier studies, visual communication does not figure prominently in the authors' discussion; however, several of the competencies identified as most important do mention or focus specifically on knowledge needed for effective visual communication. Some of these are technical skills, including the ability to use desktop-publishing, document-design, Web-design, and presentation software. Others are more conceptually based abilities, including applying audience analysis to document design, using "visual elements to communicate a message persuasively to a target audience," designing and producing a range of "professional communication products," and using page design to present verbal content "attractively" (Rainey et al., 2005, p. 324). One of the three management respondents who participated in a follow-up interview commented that, were she designing a technical communication curriculum, she would "make visual communication a required course" (p. 332). In short, while Rainey et al. do not focus on visual communication per se, their data begin to offer an idea of the importance placed on visual communication competencies in the workplace.

The practitioner survey I discuss in this article differs from that of Rainey et al. (2005), and from other earlier attempts to examine workplace practices and competencies, in that it limits its scope to one specific area of practice: visual communication. The relatively narrow focus allows the survey to provide information that cannot be supplied by a broader look at workplace practices; it results in data that provide a more detailed picture of the role of the visual in the work of the professional communicator. Such information is not currently available in the literature and, given the growth of related courses in professional communication curricula, is of particular use to academics and to those students considering careers as professional communicators.

The survey echoes the areas investigated by Faigley and Miller (1982) in their exploration of writing on the job. Faigley and Miller "set out to construct a broad picture of the writing of college-educated people in general …" (p. 558), gathering data about five general areas: how much work time was dedicated to writing; what types of workplace writing were required; what methods of composing and media were used; what respondents thought should be taught in college writing programs; and how much writing they did outside of work (p. 558). Again, an immediately apparent difference between the Faigley and Miller survey and the practitioner survey I conducted is the latter's much narrower focus. However, the survey I conducted constructs a picture of the visual work of professional communicators by addressing areas that parallel those explored by Faigley and Miller:

1. How much visual communication are practitioners doing?
2. What types of visual communication are practitioners doing?
3. How have practitioners acquired their visual communication knowledge and skills and what is the perceived value of these skills among practitioners?

METHODOLOGY

In order to gauge the role that visual communication plays in the work of practicing professional writers, I conducted a study using a Web-based survey. I solicited anonymous participation in the survey through a posting to techwr-l (www.techwr-l.com/techwhirl/). The study was conducted in full compliance with the guidelines established by the Virginia Tech institutional review board for human subjects research.

Techwr-l is a Listserv of practitioners that has roughly 5000 subscribers. In November 2005, when I first posted my message soliciting participation in the survey, 203 subscribers were responsible for a total of 610 postings. Although the number of postings was on the low end that month, the pattern of participation was typical. The next month, when I sent a reminder e-mail to the list, there were 963 messages

posted by 208 subscribers. From November 2005 through February 2006, the average number of postings per month was 875; during that same time period, the average number of subscribers posting messages was 204. The list archives suggest that there is a solid core of individuals who post regularly and who comprise the better part of those 204 subscribers. In short, while there are 5000+ subscribers, only around 200 of them actively participate in the Listserv.

My posting to the Listserv described the purpose of the survey and provided the URL at which the survey could be accessed. The survey, which took approximately 8–10 minutes to complete, included 17 questions as well as opportunities to elaborate on responses or add additional comments. (See Appendix A for a copy of the survey instrument). The introduction to the survey restated the purpose described in my Listserv posting: to assess the degree to which visual communication is central to the work of practitioners in professional communication positions. The introduction also included the following brief definition of visual communication: "By visual communication, I refer to designing print, Web, and multimedia documents (including decision-making about issues such as layout, typography, color, etc.), creating visual displays of information/data, generating other visual material (e.g., images, photographs) for professional documents, and any other communication tasks which rely on visual language." The description intentionally was kept general so as to be as inclusive as possible.

The survey questions fell into three main categories that focused on typical workplace tasks, the extent and type of visual communication work, and the acquisition of visual communication skills. Additionally, I collected general demographic information regarding company size, industry sector, job title, and so on. Cross-tabulation analysis, which enables comparisons of data from two or more questions, was used to identify relationships between variables. Finally, a variety of tests—regression analysis, *t* test, and chi-square—were used where appropriate to determine the statistical significance of the data.

Advantages and Limitations

Soliciting participation through the Listserv and utilizing a Web-based survey had significant benefits. The Listserv provided ready access to a large population of active professionals in various industries and organizational structures; thus, like the data gathered by Rainey et al. (2005), the practitioner data presented here reflect the visual work done by professional communicators irrespective of industry sector. The Web-based approach also enabled participants to complete the survey in a convenient way as their schedules allowed, without the bother of having to fill out and mail hard-copy responses. Finally, it had the added benefit of allowing participants to remain anonymous, potentially encouraging more candid responses.

However, the same characteristics that made the survey methodology advantageous also resulted in two limitations that should be noted. First, the sampling

method: Because participation was solicited through the Listserv, and because respondents self-selected—that is they opted to participate rather than being randomly selected—the sample cannot necessarily be assumed to be representative of the field as a whole. Second, because participation was anonymous, it did not allow for the control of demographics such as industry sector, company size, position type (managerial vs. nonmanagerial), and so on.

RESULTS

Over the course of approximately 2 weeks, 140 techwr-l subscribers completed the survey. The majority of respondents have well-established professional communication careers spanning more than a decade. Almost a quarter (24%) have worked as a professional communicator for over 20 years. One third (33%) have been in the field for 1–2 decades: 11% report 16–20 years of experience and 22% report 11–15 years. One quarter have 6–10 years of experience; only 17% have worked in the field for 5 or fewer years (see Figure 1).

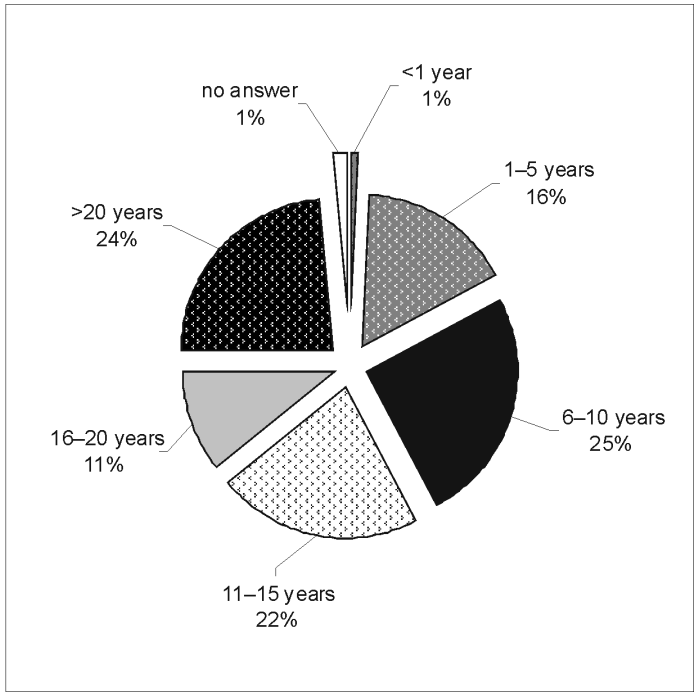

FIGURE 1 Respondents' length of time in field.

Most respondents are full-time employees; approximately 8% identified themselves as consultants or contract/freelance writers. Two of the consultants currently hold managerial positions, but relatively few (24%) of the respondents who are full-time permanent employees are in management positions, which is somewhat surprising given the career longevity reported. In fact, the data indicate that whether or not respondents held a management position was unrelated to their length of time in the field. That is, those who had been working as professional communicators for many years were no more likely to be managers than those who were newer to the field. Likewise, holding a related degree had no bearing on whether or not the respondent had a managerial position. (This last is not as surprising; giving the relative newness of professional communication programs as compared to the length of time many of the respondents have worked in the field).

Respondents tended to be employed by larger companies/organizations: Almost half (44%) worked for companies with over 500 employees, while 14% worked for companies with between 200 and 500 employees; the remainder of respondents were evenly distributed among smaller companies.

The majority of respondents (53%) reported working in the technology sector. An additional seven who chose Other for industry sector subsequently indicated that their employer develops software and/or hardware; adding these to the technology sector figures brings the total for that sector to 58% of respondents. The remainder are scattered across various industry sectors. Some of the respondents may work for the same company/organization, so the percentages regarding company size and sector should not necessarily be assumed to reflect industry-wide patterns. However, it is interesting to note that Rainey et al. (2005) similarly reported the largest group of their respondents (38%) were in the technology sector, with an additional 10% working in related areas such as telecommunications.

In short, although the respondents comprise a small percentage of techwr-l subscribers overall, they reflect a very well-seasoned body of practitioners in traditional technical writing positions. Additionally, as noted by Rainey et al. (2005) in their study, the range of respondents increased the likelihood that the data may be suggestive of the field more broadly, the convenience sampling approach notwithstanding. The survey results confirm that the responsibilities associated with professional communication positions have expanded and that a substantial portion of the work practitioners do is visual in nature.

Typical Document Types

The majority of respondents' professional communication work still appears to center on print documents rather than on electronic documents. Respondents indicated all of the document types that they create on a regular basis, choosing from the following list: user documentation/instructions, training materials, reports,

Web pages, grants/proposals, informational documents (e.g., fact sheets), and marketing materials. Space was provided for respondents to list additional document types under an Other category; 16% of respondents utilized this option. Just over one fifth of respondents (21%) checked only one document type: user documentation/instructions. In fact, almost all of the respondents (94%) work with user documentation/instructions; over three quarters (78%) work with user documentation/instructions in addition to other document types. Almost half of respondents (46%) create informational materials such as fact sheets; over one third (39%) produce training materials. Interestingly, respondents were as likely to create marketing materials as reports; 25% checked one or both of these categories. A low number of respondents—only 8 of 140 (6%)—are writing grants and proposals (see Figure 2).

Fewer respondents are working with electronic documents than with print documents: about one third (34%) create Web pages, and responses in the Other category suggests that about 9% are creating online help systems, the electronic form of user documentation. Thus, the data suggest that, while a substantial portion of respondents (a total of around 43%) do work with electronic documents, most of their work is still dedicated to print documents.

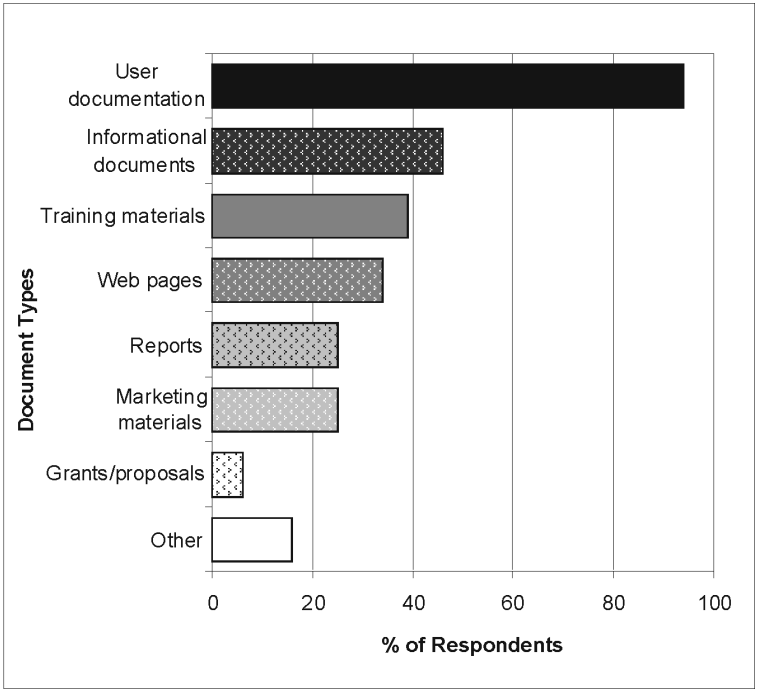

FIGURE 2 Types of documents created by respondents.

Typical Workplace Tasks

In what capacity do professional communicators work with these documents? Their responsibilities are many and varied. In order to identify typical on-the-job tasks for professional communicators, I asked respondents to check all the tasks that applied from the following list: writing; editing others' writing; designing print, Web, or multimedia documents; training; and usability testing. Room was provided for respondents to list additional tasks as necessary; 14% took advantage of this option. Only 9 of the 140 respondents (6%) listed only one task; in other words, almost all respondents have a range of job responsibilities. This characteristic was independent of company size and industry sector.

Not surprisingly, although respondents' range of job tasks typically includes visual communication, writing and editing remain the bread-and-butter tasks of the professional communicator: 98% of respondents write on the job, and 86% edit others' writing. However, only 19 of the 140 respondents (approximately 14%) indicated that their work is confined to only writing and/or editing. Visual communication was the next largest category: Over three quarters of respondents (78%, or 109 of 140) indicated that designing documents is a typical task in their job (see Figure 3).

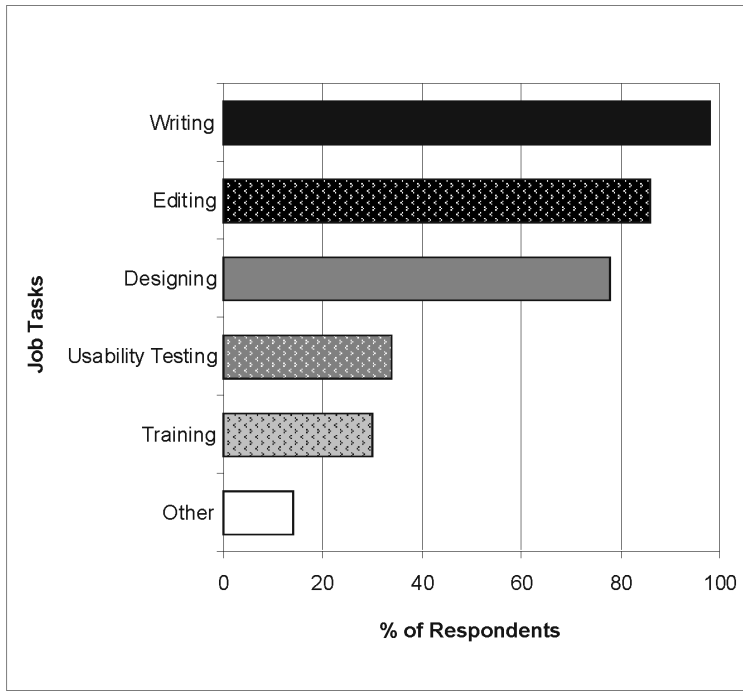

FIGURE 3 Respondents' typical job tasks.

Close to half of respondents (43%) work for companies or organizations that also employ visual communication specialists, but even in those situations, the respondents still have visual communication responsibilities: 46 of the 109 respondents (42%) who listed designing documents as a typical task in their job have coworkers who are specialists in visual communication. Cross-tabulating these data reveals that the pattern of responses is virtually identical in companies with and without visual communication specialists (see Table 1), indicating that the presence of specialists had no bearing on whether or not professional writers did design work.

Extent and Type of Visual Communication Work

Although designing documents is a typical task for over three quarters of respondents, it is, as the above results suggest, one task of many. However, visual communication comprises a substantial portion of respondents' work: an average of 21–30%, or between 1 and 1.5 days out of every 5-day workweek. Only 19 of the 140 respondents (14%) said that less than 10% of their work is visual in nature. Most respondents (59%) said that between 10 and 30% of their work is visual communication, while approximately one sixth (17%) indicated that visual communication comprised between 31 and 50% of their work. Finally, almost one tenth (9%) said it comprised over half of their work (see Figure 4).

The survey revealed no relationship between the type of position (managerial or nonmanagerial) respondents held and the amount of visual communication work they reported doing. In other words, managers and nonmanagers reported comparable amounts of time dedicated to visual communication. Additionally, there was no relationship between the presence of visual communication specialists and the amount of visual work done by professional writers. Respondents reported doing comparable amounts of visual communication work whether or not the company employed visual communication specialists. Finally, although the small group sizes and uneven distribution preclude any statistically reliable comparisons, there do not appear to be marked differences between industry sectors. That is, technical writers appear to dedicate comparable amounts of time to visual communication regardless of the industry sector in which they work.

TABLE 1
Design as a Typical Job Task Cross-Tabulated With Employment of Visual Communication Specialists

	Designing	*No Designing*
Specialists	77%	23%
No Specialists	79%	21%

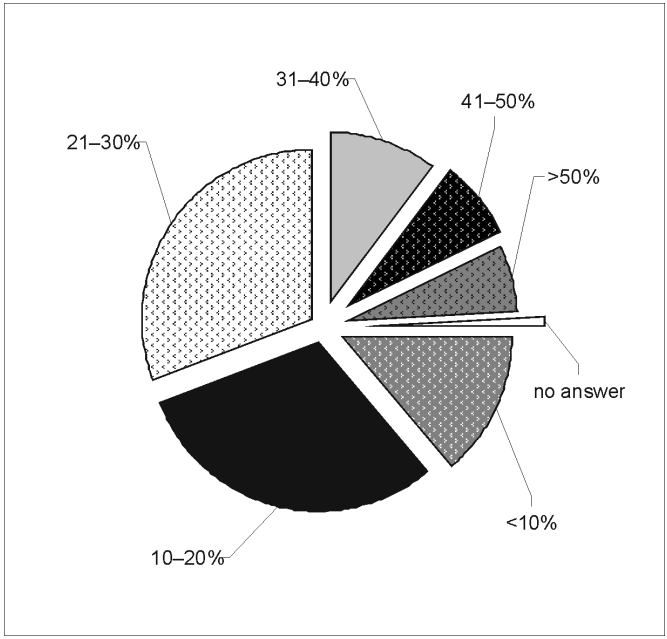

FIGURE 4 Percentage of respondents' work dedicated to visual communication tasks.

Decision-making Responsibilities

Respondents expressed varying levels of decision-making pertaining to visual communication, although, taken as a whole, they have a great deal of responsibility in this area. Approximately three quarters of respondents (72%) design layouts or other visual content (e.g., illustrations, graphs, etc.) from scratch. An almost equal number (73%) said they apply preexisting company standards or templates, but at the same time, 41% indicate that they develop those standards. Well over three quarters modify visual content created by others and/or determine when and where to include visual content in documents (82 and 81%, respectively). Overall, respondents have significantly less responsibility for the development of company standards than for other visual communication decisions (see Figure 5).

As one might expect, the type of position respondents hold (managerial or nonmanagerial) has an impact on the level of decisions they make pertaining to visual communication. There is a modest significant difference between managers and nonmanagers in the overall distribution of tasks ($p = .02$); in other words, the pattern of responsibility is different between the two groups. It is important to note, however, that because there were relatively few respondents who were managers (22%), this difference may appear larger, and therefore more significant, than it really is. A larger sample may reveal no overall difference between managers and nonmanagers.

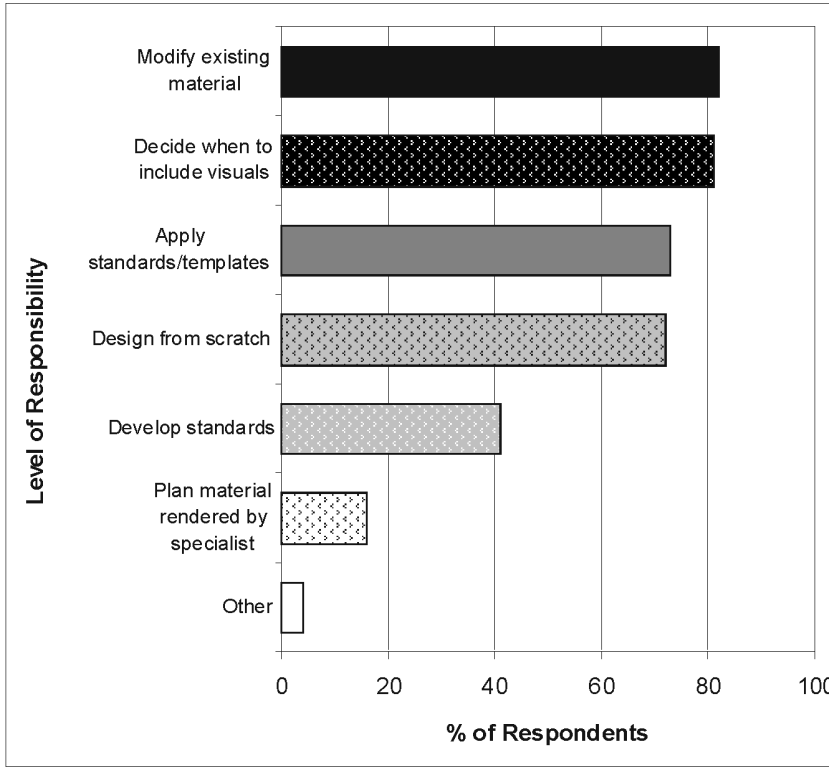

FIGURE 5 Respondents' level of responsibility for visual communication.

Almost all of the difference between managers and nonmanagers can be accounted for by the difference in one category: Managers are more likely to have responsibility for developing company standards for visual communication (p = .01), although over one third (35%) of nonmanagers still do this type of work. When it comes to designing layouts/content from scratch, applying existing standards or templates, determining when and where to include visual material, modifying existing material, and even planning material for specialists, cross-tabulating the data indicates that managers and nonmanagers share equal responsibility (see Table 2).

The presence of specialists within the company likewise affects professional writers' level of decision-making for visual communication, but to an even more limited degree. Overall, the distribution is not statistically different between the two groups (with and without specialists); that is, the pattern of responsibility is comparable whether or not the respondents had coworkers who are visual communication specialists. However, respondents are significantly less likely to have re-

TABLE 2
Level of Decision-Making Cross-Tabulated With Position Type

	Develop Company Standards	*Design "From Scratch"*	*Apply Existing Standards and/or Templates*	*Determine When/Where to Include Visual Content*	*Modify Existing Material*	*Plan Material for Specialist*
Managerial	61%	87%	71%	87%	84%	29%
Nonmanagerial	35%	68%	72%	80%	82%	13%

(Shaded area depicts statistically significant difference between managers/nonmanagers.)

sponsibility for developing company standards for visual communication if the company also employs specialists ($p = .007$). At all other levels of decision-making—designing document layouts and visual content from scratch, applying existing standards, determining when and where to include visual materials, and modifying existing material—the presence of visual communication specialists had no significant impact; cross-tabulating the data reveals that professional writers were just as likely to have these responsibilities whether or not the company also employed visual communication specialists (see Table 3).

Interestingly, even in companies that did not employ specialists, 11% of respondents reported planning materials that would be rendered by such a specialist, suggesting that a small portion of the visual communication work was contracted out.

Types of Visual Communication Work

The range of visual communication work reported by respondents is broad; however, as suggested by the document types reported, most of it appears to center on print-based documents rather than on electronic or multimedia documents. For 86% of respondents, page layout is part of the job, and 80% design print documents. Approximately three quarters (76%) create and/or modify images for inclu-

TABLE 3
Level of Decision-Making Cross-Tabulated With Employment of Visual Communication Specialists

	Develop Company Standards	*Design "From Scratch"*	*Apply Existing Standards and/or Templates*	*Determine When/Where to Include Visual Content*	*Modify Existing Material*
Specialists	28%	65%	73%	82%	82%
No Specialists	51%	78%	73%	81%	83%

(Shaded area depicts statistically significant difference between companies with and without specialists.)

sion in documents. In contrast, only 43% design Web pages, and only 21% indicated that they create multimedia materials (see Figure 6). Of the small group of respondents who checked Other types of visual communication (6%), one third (three respondents) listed designing user interfaces as part of their job. Only one respondent indicated that s/he designs online help systems, suggesting that respondents who earlier indicated that they create online help systems may be doing the writing but not the designing of those documents.

While the small groups and skewed distribution preclude any sort of statistically reliable comparisons, there do not appear to be marked patterns of difference in the types of visual communication work done by respondents in various industry sectors. This is particularly true regarding print document design and page layout. The data suggest that those employed in the financial and service sectors may be more likely to do Web design, while those in the service sector may also be more likely to design presentations. However, with only a handful of respondents in each of these groups, the data cannot be assumed to provide a reliable representation of the industry sector.

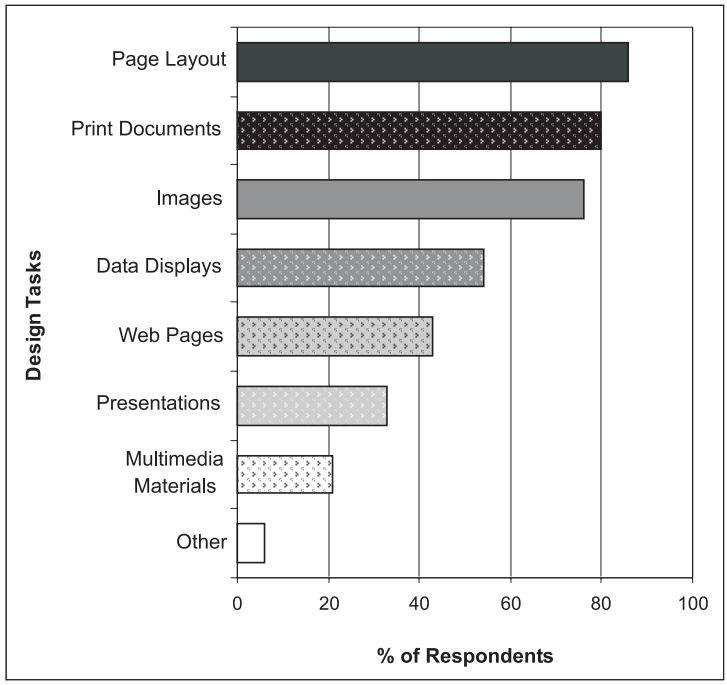

FIGURE 6 Respondents' visual communication tasks.

Acquisition of Visual Communication Skills

How did respondents acquire the knowledge and skills needed for the visual communication work they do on the job? Approximately half of respondents (47%) indicated that they hold a degree in professional communication or a related field; over a quarter of that group have completed or are in the process of completing a master's degree. Perceptions of what constitutes a related field ranged broadly, from engineering, to ergonomics, to education, to English literature. Degrees notwithstanding, respondents tended to acquire their knowledge of visual communication through a combination of approaches that included on-the-job training, self-teaching, and the occasional seminar or professional workshop, in addition to formal education (see Figure 7).

While one third of respondents included formal education as one of the ways in which they acquired their knowledge, fewer than one tenth (8%) said that it was the primary way (see Figure 8).

Among those without a related degree, only a negligible number of respondents (1%) acquired their knowledge of visual communication primarily through formal

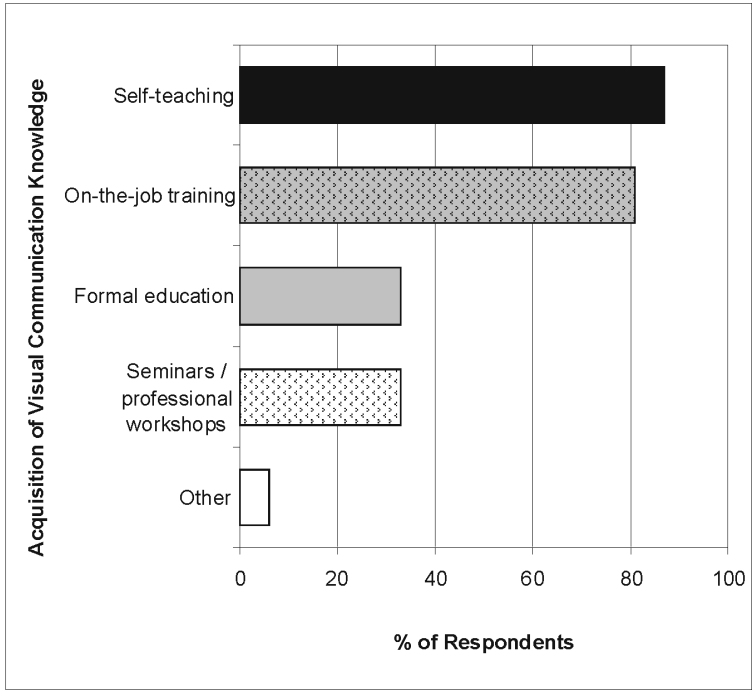

FIGURE 7 Ways in which respondents acquired visual communication abilities.

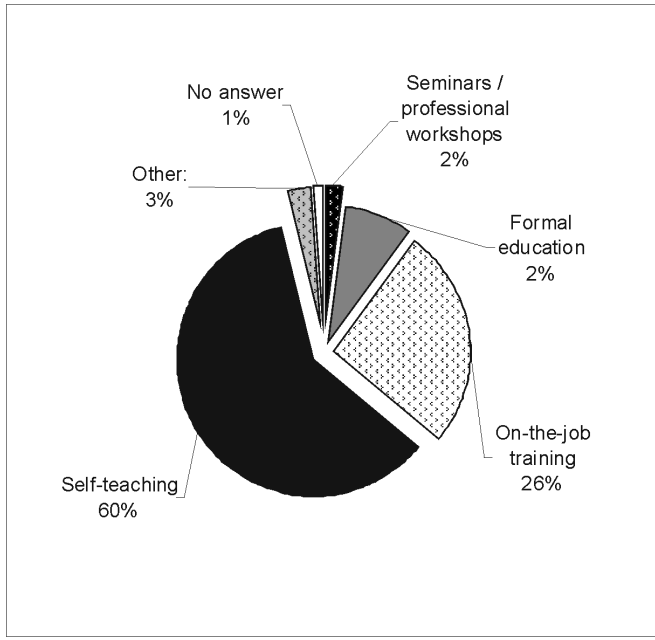

FIGURE 8 Primary way respondents acquired visual communication abilities.

education; however, even among respondents who do hold a related degree, only 16% listed formal education as the primary way they acquired their visual communication knowledge. Far more typical was the acquisition of this knowledge through self-teaching. Not surprisingly, among those without related degrees, significantly more respondents—a full three quarters (75%)—listed self-teaching as the primary way in which they acquired their knowledge of visual communication; almost all of the remaining respondents in this group (22%) indicated their knowledge was acquired primarily through on-the-job training. Of the respondents with related degrees, almost half (48%) listed self-teaching as the primary method of acquiring visual communication knowledge, while one third (33%) said it was through on-the-job training (see Table 4).

Valuing Visual Communication Abilities

Almost three quarters (72%) of respondents felt that having additional visual communication abilities would be useful to them in their current position, even though almost the same number (75%) said that having additional abilities would not make them any more qualified for promotion. The value respondents placed on additional visual communication skills was independent of the size of the organi-

TABLE 4
Primary Method of Acquiring Visual Communication Knowledge
Cross-Tabulated With Possession of Job-Related Degree

	Formal Education	*On-the-job Training*	*Self-Teaching*	*Seminars/ Workshops*
Degree	16%	33%	48%	3%
No Degree	1%	22%	75%	1%

(Shaded area depicts only statistically significant difference between those with and without a job-related degree.)

zation and the presence of specialists; it was also independent of whether or not the respondent held a management position. Respondents' explanations indicated that they felt additional skills would be beneficial for three general reasons:

1. higher document quality
2. greater efficiency
3. improved decision-making and communication

Responses in the first category typically reflected a conception of the visual as both rhetorical and aesthetic. For example, comments mentioned enhancing the user's understanding of content, impacting the ways in which people read, and addressing differing learning styles, in addition to making documents more attractive.

Respondents also felt that having more visual communication abilities would lead to greater efficiency in terms of the production of documents and the costs incurred by their employer. Several comments mentioned the benefits of being more versatile and being able to develop visual content more quickly and more independently, without relying as heavily on the input of supervisors or specialists (whether the latter were internal or external to the organization).

Additionally, respondents thought that more expertise would lead to improved decision-making and communication regarding visual content. As one respondent explained, "Better [visual communication] skills will help me to make better decisions and to explain those decisions to people more effectively."

Respondents who did not think they would benefit from additional visual communication skills generally felt that their level of knowledge was sufficient for their current job responsibilities.

Including Visual Communication in the Curriculum

Whether or not respondents acquired their own knowledge through formal education, a resounding 94% felt that, based on their experiences in the workplace, the

professional communication curriculum should include instruction in visual communication. Even among those who said that additional skills would not be useful in their current position, 89% still felt that such instruction should be included in the professional communication curriculum.

Respondents' explanations made clear their conviction that visual communication is both "a regular, expected part of the typical technical communicator's job" and "an important component of communication," particularly in light of what one respondent referred to as "the modern audience." As such, they believe it should be part of professional communicators' formal training. Respondents also expressed the opinion that the field has changed—and continues to change—with a greater focus on visual communication being part of that change. Echoing statements found in the literature, one respondent explained, "Unlike 20 or 30 years ago, visual communication plays a large role in technical and business writing deliverables. The possibilities with layout, design, and color in both print and on-line are almost limitless; professional communicators need to know how to best use visual presentation techniques in all today's media."

Among the five respondents (4%) who felt visual communication does not belong in the professional communication curriculum, three gave reasons for their response, but these reasons showed little uniformity. One respondent commented that s/he has not used visual communication in his/her "11+ years on the job," yet this same respondent previously had indicated that designing print documents, Web documents, information displays, and presentations was part of his/her job; no explanation was offered for this apparent contradiction. A second respondent felt the basics of visual communication should be taught in professional communication programs, but that adding "too much" material "would excessively diffuse" the curriculum. The final respondent explained, "Textual composition and visual composition are not necessarily skills that go together. Just because word processors combine the two functions does not mean these talents coexist in the user's brain." These responses seem to reflect differing understandings of the nature of visual communication, its "teachability," and its relationship with professional communication more generally.

DISCUSSION

The survey results point clearly to the importance of visual communication in the workplace. They confirm that the role of the professional writer has indeed expanded beyond the domain of the verbal, as our pedagogical literature suggests. In fact, the data suggest that, on average, quite a substantial amount of time on the job is dedicated to visual communication, possibly even more than one might expect, given the preponderance of work on rather traditional technical writing documents such as user documentation. Professional writers do design work—and do compa-

rable amounts of design work—regardless of company size and industry sector, regardless of the type of position they hold (managerial or nonmanagerial); and regardless of whether or not they have coworkers who are visual communication specialists. In short, visual communication abilities have, without question, become central to the work of practicing professional writers.

Yet, as Faigley and Miller (1982) concluded from their study of workplace writing, "What we learn from asking about writing on the job is not just that writing is an important skill" (p. 569). Likewise, what we learn from asking about visual communication on the job is not just that visual communication is an important skill, although the survey results provide unequivocal evidence for this. As importantly, though, the data offer information regarding the *types* of visual work professional writers do, information that can inform pedagogical decisions and curricular structures.

Professional writers have responsibility for a range of visual communication decisions. The most prevalent visual communication responsibilities are designing visual content from scratch, determining when and where to include visual material, modifying existing material, and applying preexisting templates. The one area that exhibits significant variation among groups of respondents is the development of company standards for visual communication. Managers may have more responsibility for developing company standards, as may professional writers in companies without visual communication specialists; however, it would be misleading and inaccurate to suggest that professional writers in other positions do not also do this type of work.

In terms of more specific visual communication tasks, practicing professional writers design print documents, page layouts, images, and data displays, even presentations. Fewer than half of the participants also design Web or other electronic documents, suggesting that print documents—and the design of those documents—are still at the heart of professional communication. The survey results indicate that practitioners' visual communication responsibilities are complex and varied, requiring fluency in visual thinking and problem-solving as well as design principles and tools.

Respondents' comments suggest that their knowledge is both skills centered and rhetorical, and suggest, also, the high value they place on visual communication. They not only emphasize how important visual communication is to professional communication more broadly, but also express the opinion that having more visual communication abilities would help them do their jobs better. Although almost half of the practitioners who participated in the survey hold a degree in professional communication or a related area, their visual communication abilities have been acquired primarily through self-teaching and/or on-the-job training. Finally, based on their own experiences on the job, respondents overwhelmingly expressed the perspective that instruction in visual communication should be an integral part of professional communication curricula. As one respondent summed up:

> Unless you are communicating through the spoken word alone, everything you say/write/show is visual. Just as most technical writing courses address presentations, different types of writing, and different ways of disseminating writing, they should also address creating and using graphics, graphical layout techniques, and other visual display[s] of information. Most importantly, teach these skills with the research and writing skills, not merely as an unconnected aside.

IMPLICATIONS

The survey data have implications for employers and educators alike. Given the work professional writers are doing, it would seem prudent for companies to facilitate and support additional training in visual communication for their employees. It is likely that emphasis on the visual will increase rather than diminish, and it would be in the best interests of both employers and professional writing personnel to have an established system for keeping pace.

There is an opportunity here for academe to build connections with industry, strengthening a relationship that has traditionally been uneasy (see, for example, Blakeslee & Spilka, 2004) in a way that could be mutually beneficial. Employers and practicing technical writers already benefit from certificate programs and other course offerings designed and scheduled for a nontraditional student body. Working closely with industry partners to determine their visual communication needs, academic programs can develop courses to help practitioners stay current. At the same time, academic programs at both the undergraduate and graduate level would benefit significantly from such connections, not only through increased opportunities for student internships and employment, but also, and perhaps more significantly, through the dialogues that may ensue about workplace practices.

The survey results have additional implications for academic programs, particularly those at the undergraduate level. As Allen and Benninghoff (2004) note, professional communication programs are not only growing rapidly, they are also changing to keep pace with changes in workplace roles. The survey data provide points of comparison between academic preparation and workplace practice, offering faculty and program directors information that can be used for curricular development, assessment, and revision. In fact, the responses to the survey present a very strong argument for making visual communication a curricular priority—a required and primary area of study rather than an elective or secondary area. If practitioners are spending, on average, between 1 and 1.5 days of their workweek on visual communication, should not programs also dedicate a significant amount of instructional time to it?

Additionally, the data argue for instruction that marries theory and practice, concept and skill, and that gives particular weight to careful rhetorical decision-making regarding the design and layout of print documents. If practitioners'

responsibilities range from designing standards to applying templates, from solving visual communication problems to editing visual material, then pedagogy must extend beyond coverage of rudimentary principles to a carefully integrated rhetorical understanding of design. Finally, the survey results suggest that, although Web design may be sexier to many of our students, printed-based work is still the heart of professional communication and should therefore still take precedence in our curricula.

In short, based on the survey results, the argument can be made that every professional communication program should aspire to graduate students who not only have the knowledge and skills to plan, write, and edit verbal material for a range of audiences, purposes, and contexts, but also have the knowledge and skills to plan, design, and create visual material for those same audiences, purposes, and contexts.

Some may argue that professional communication programs already accomplish these goals. For instance, Allen and Benninghoff's (2004) snapshots of 42 undergraduate programs suggest that visual communication—in the form of document design and visual rhetoric—features prominently in professional communication curricula. Almost half (48%) of Allen and Benninghoff's respondents indicated that document design is a core topic in their program; just over one quarter (26%) said that visual rhetoric is a core topic (p. 170–171). When asked to choose the "highest appropriate level of engagement" (p. 161) for a list of principles/topics, 69% of Allen and Benninghoff's respondents indicated that document design is included in all or most courses (the highest level of engagement); 43% said visual rhetoric/visual meaning is included in all or most courses. Almost a quarter of their respondents (24%) indicated that document design is featured as a topic in one or two courses in their program (the next highest level of engagement); visual rhetoric/visual meaning was featured as a topic in one or two courses for 52% of the programs.

Although Allen and Benninghoff's (2004) program snapshots seem to indicate that the visual is central to professional communication programs, they lack a depth of field that might disclose a somewhat different understanding of the programs and, more specifically, of the role of visual communication within the programs. For example, can one faculty member—even the program director—describe with any certainty how topics are addressed in every course in the program? As a faculty member in a professional writing program, I can certainly discuss programmatic goals and course objectives. However, without closely comparing syllabi, talking at length with the individuals who created and teach those syllabi, and observing colleagues' classes for an extended period, I could not comfortably claim to know how they are teaching visual communication in their courses or even how much visual communication they are including. And what does it mean for a topic to be included in a course? Based on my own experiences as both teacher and student, this may mean coverage ranging from extensive and carefully integrated (e.g., visual communication is introduced as a critical component of professional

communication, and every project in the course has a visual component) to extremely limited (e.g., document design is the focus of a unit or a lecture or one assignment).

Perhaps even more importantly, the snapshots do not reveal connections between visual communication concepts and skills (or put differently, they reveal a troubling lack of such connections), connections that are crucial in preparing students for the workplace roles discussed by practitioners. When asked what skills/procedures are included in their program, Allen and Benninghoff's (2004) respondents listed only one item that focused specifically on visual communication: Graphics development is covered in all or most courses in 24% of the represented programs and is a featured topic in one or two courses for 52% of the programs. How, then, can document design be a core topic within the program, or even a topic included in all or most courses? Where are the other skills that contribute to students' knowledge and abilities in document design and visual rhetoric?

Allen and Benninghoff's (2004) snapshots offer a starting point, but in order to determine whether programs are keeping pace with changing workplace roles, we need more detailed curricular portraits as well. For visual communication, the initial sketches of such portraits might be developed by asking ourselves questions about the courses we teach—questions similar to those asked of the practitioners who responded to the survey:

1. Approximately how much of the students' work is dedicated to visual communication concepts and/or skills?
2. What types of visual communication are required of students? (print design, design of graphics/images, etc.)
3. What types of documents do students design? (user documentation, reports, etc.)
4. Do students learn how to develop style sheets and standards and gain experience in applying existing standards?

Finally, it is important to note that the practitioner survey results I have discussed here similarly would be enriched through additional research, which would in turn provide a more complete picture of the role of visual communication in the workplace. For example, similar studies that control for industry sector and company size would allow more detailed and reliable comparisons to be made. More focused studies that look only at the work of professional writers within a particular industry sector would be particularly useful for programs whose students tend to seek employment in that sector. At an even more detailed level, case study research could offer up-to-date profiles of professional writers that showcase visual communication and help students to see the importance of integrating verbal and visual abilities.

CONCLUSION

By no means do I intend to suggest here that we should evaluate professional communication programs and reshape curricula solely in terms of how they meet the needs of the corporate workplace. That would be an enormous step backward, particularly for a field that has worked hard to balance theory and skills, to produce reflective and critical practitioners. However, preparing students for the workplace is a goal of most undergraduate programs and, as transparently pragmatic as that goal may be, it is an important one for our students and perhaps even for our existence as an academic discipline. Practitioner data like those presented in this article are one important component of the larger equation that defines professional communication within the academy; they can help us think about not only what we teach, but why and how we teach it. Such reflection enriches our teaching, our programs, and, in turn, our professional practices.

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APPENDIX A: SURVEY INSTRUMENT

The purpose of this survey is to assess the degree to which visual communication is central to the work of practitioners in professional communication positions.

By visual communication, I refer to designing print, Web, and multimedia documents (including decision-making about issues such as layout, typography, color, etc.), creating visual displays of information/data, generating other visual material (e.g., images, photographs) for professional documents, and any other communication tasks that rely on visual language.

By completing the survey, you indicate your willingness to participate in this study.

1. **Which of the following are typical tasks in your job? (Check all that apply.)**
   ☐ Writing
   ☐ Editing others' writing
   ☐ Designing print, Web, or multimedia documents
   ☐ Training
   ☐ Usability Testing
   ☐ Other: _____

2. **What types of documents do you create on a regular basis for your job? (Check all that apply.)**
   ☐ User documentation/instructions
   ☐ Training materials
   ☐ Reports
   ☐ Web pages
   ☐ Grants/proposals
   ☐ Informational documents (e.g., fact sheets)
   ☐ Marketing materials
   ☐ Other: _____

3. What types of visual communication are part of your job? (Check all that apply.)

☐ Design of print documents
☐ Layout of pages
☐ Design of Web documents
☐ Design of visual displays of information/data
☐ Creation/modification of images for inclusion in professional documents
☐ Design of presentations
☐ Creation of multimedia materials
☐ Other: _____

4. To what extent do you make decisions about the design of the documents you create? (Check all that apply.)

☐ Develop company standards for visual communication
☐ Design layouts and/or visual content (e.g., illustrations, graphs, etc.) from scratch
☐ Apply preexisting company standards/templates
☐ Determine when/where to include visual content
☐ Modify existing material created by someone else
☐ Plan material that will be rendered by a visual communication specialist
☐ Other: _____

5. Approximately how much of the work you do on the job is visual communication?

☐ < 10%
☐ 10–20%
☐ 21–30%
☐ 31–40%
☐ 41–50%
☐ > 50%
☐ Other: _____

6. If you had more visual communication skills, would they be useful in your current position?

☐ Yes
☐ No
Why/Why not? _____
_____

7. **Would having additional visual communication skills make you more qualified for promotions?**
   ☐ Yes
   ☐ No
   Why/Why not? _____
   _____

8. **How did you acquire the knowledge and skills necessary for the visual communication aspects of your job? (Check all that apply.)**
   ☐ Formal education
   ☐ On-the-job training
   ☐ Seminars/professional workshops
   ☐ Self-teaching
   ☐ Other: _____

9. **What is *the primary way* in which you acquired the knowledge and skills?**
   ☐ Formal education
   ☐ On-the-job training
   ☐ Seminars/professional workshops
   ☐ Self-teaching
   ☐ Other: _____

10. **Do you hold a degree in professional communication or a related field?**
    ☐ Yes ☐ No
    If "yes," what is the name and year of the degree (e.g., MA Professional Writing 2002) _____
    _____

11. **Based on your experiences on the job, should professional communication curricula include instruction in visual communication?**
    ☐ Yes ☐ No
    Why/Why not? _____
    _____

12. **How long have you worked as a professional communicator?**
    ☐ < 1 year
    ☐ 1–5 years
    ☐ 6–10 years
    ☐ 11–15 years
    ☐ 16–20 years
    ☐ > 20 years

13. What is your job title?
☐ Technical Writer
☐ Technical Editor
☐ Documentation Specialist
☐ Information Developer
☐ Online Help Developer
☐ Usability Specialist
☐ Web Designer
☐ Other: _____

14. Is your position managerial?
☐ Yes ☐ No

15. Does the company/organization at which you work employ visual communication specialists?
☐ Yes ☐ No

16. What is the size of the company/organization at which you work?
☐ 1–25 employees
☐ 26–50 employees
☐ 51–100 employees
☐ 101–200 employees
☐ 201–500 employees
☐ > 500 employees

17. What is the industry sector of the company/organization at which you work?
☐ Financial
☐ Government/Nonprofit
☐ Manufacturing
☐ Medical/Healthcare
☐ Service
☐ Technology
☐ Other: _____

Please feel free to elaborate on any of your responses or add additional comments about the role of visual communication in your job or in professional communication positions more generally _____

_____